EXHIBIT 12

Office Action Summary	Application No.	Applicant(s)	
	11/491,330	OLSON ET AL.	
	Examiner	Art Unit	
	Jeffrey S. Parkin	1648	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *03* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 August 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-29,32-37,42 and 105-111* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-29,32-37,42 and 105-111* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *02/05/2007; 11/24/2008*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Applicants: Graham P. Allaway et al.
Serial No.: 09/888,938
Filed: June 25, 2001
Exhibit 12

Detailed Office Action

Status of the Claims

Applicants' election with traverse of Group I in the communication filed 25 August, 2008, is acknowledged. Applicants' arguments are deemed to be persuasive and the restriction requirement previously set forth is hereby withdrawn. Claims 1-29, 32-37, 42, and 105-111 are currently under examination.

37 C.F.R. § 1.98

The information disclosure statements filed 05 February, 2007, and 24 November, 2008, have been placed in the application file and the information referred to therein has been considered.

35 U.S.C. § 103(a)

The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-29, 32-37, 42, and 105-111 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Trkola *et al.* (2001).

The claims are directed toward a method of reducing the viral load in an HIV-1-infected patient by administering an anti-CCR5 Mab which essentially binds to $CD4^+CCR5^+$ cells, is equally or more potent than huMab PRO 140, and does not induce β-chemokine expression. Additional limitations simply specify dosing/administration parameters, as well as, the administration of other antivirals (e.g., NRTIs, NNRTIs, non-antibody chemokine antagonists, etc.). Trkola *et al.* (2001) demonstrate unambiguously that huMab PRO 140, a humanized anti-CCR5 monoclonal antibody, is efficient at inhibiting viral replication in PBMCs. This Mab meets all of the functional limitations claimed. This teaching also discloses the antiviral activity of other antivirals including the non-antibody chemokine antagonists RANTES and TAK-779. This teaching does not disclose the administration of PRO 140 to HIV-1-infected patients, either singly, or in combination with another known antiviral, or the various dosing parameters claimed. However, it would have been *prima facie* obvious to one of ordinary skill in the art at the time of the invention to administer the huMab provided by Trkola *et al.* (2001), to HIV-1-infected patients because the data provided in this study suggests that PRO 140 would be an effective antiviral. Moreover, it would also have been *prima facie* obvious to one of ordinary skill in the art at the time of the invention to combine PRO 140 with another known antiviral (i.e., NRTI, NNRTI, RANTES, TAK-779, etc.) since this would provide an effective compound to inhibit HIV-1 infection.

The courts have previously concluded that "It is *prima facie* obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same

purpose.... [T]he idea of combining them flows logically from their having been individually taught in the prior art." *In re Kerkhoven*, 626 F.2d 846, 850, 205 U.S.P.Q. 1069, 1072 (C.C.P.A. 1980) (citations omitted) (Claims to a process of preparing a spray-dried detergent by mixing together two conventional spray-dried detergents were held to be *prima facie* obvious.). See also *In re Crockett*, 279 F.2d 274, 126 U.S.P.Q. 186 (C.C.P.A. 1960) (Claims directed to a method and material for treating cast iron using a mixture comprising calcium carbide and magnesium oxide were held unpatentable over prior art disclosures that the aforementioned components individually promote the formation of a nodular structure in cast iron.); and *Ex parte Quadranti*, 25 U.S.P.Q.2d 1071 (Bd. Pat. App. & Inter. 1992) (mixture of two known herbicides held prima facie obvious).

Moreover, the optimization of dosing regimens is routine in the prior art. In the instant scenario, one of ordinary skill in the art only has two or three different components to optimize. Accordingly, one of ordinary skill in the art could readily determine the optimal concentration of each vaccine component. See *Pfizer, Inc.* v. *Apotex, Inc.*, 480 F.3d 1348, 82 U.S.P.Q.2d 1321 (Fed. Cir. 2007). Furthermore, the courts have also consistently noted that generally, differences in concentration will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration or temperature is critical. "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." *In re Aller*, 220 F.2d 454, 456, 105 U.S.P.Q. 233, 235 (C.C.P.A. 1955); see also *Peterson*, 315 F.3d at 1330, 65 U.S.P.Q.2d at 1382 ; *In re Hoeschele*, 406 F.2d 1403, 160

U.S.P.Q. 809 (C.C.P.A. 1969). For more recent cases applying this principle, see *Merck & Co. Inc.* v. *Biocraft Laboratories Inc.*, 874 F.2d 804, 10 U.S.P.Q.2d 1843 (Fed. Cir.), cert. denied, 493 U.S. 975 (1989); *In re Kulling*, 897 F.2d 1147, 14 U.S.P.Q.2d 1056 (Fed. Cir. 1990); and *In re Geisler*, 116 F.3d 1465, 43 U.S.P.Q.2d 1362 (Fed. Cir. 1997). M.P.E.P. § 2144.05.

Correspondence

Any inquiry concerning this communication should be directed to Jeffrey S. Parkin, Ph.D., whose telephone number is (571) 272-0908. The examiner can normally be reached Monday through Thursday from 10:30 AM to 9:00 PM. A message may be left on the examiner's voice mail service. If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Bruce R. Campell, Ph.D., can be reached at (571) 272-0974. Direct general status inquiries to the Technology Center 1600 receptionist at (571) 272-1600. Informal communications may be submitted to the Examiner's RightFAX account at (571) 273-0908.

Applicants are reminded that the United States Patent and Trademark Office (Office) requires most patent related correspondence to be: a) faxed to the Central FAX number (571-273-8300) (updated as of July 15, 2005), b) hand carried or delivered to the Customer Service Window (now located at the Randolph Building, 401 Dulany Street, Alexandria, VA 22314), c) mailed to the mailing address set forth in 37 C.F.R. § 1.1 (e.g., P.O. Box 1450, Alexandria, VA 22313-1450), or d) transmitted to the Office using the Office's Electronic Filing System. This notice replaces all prior Office notices specifying a specific fax number or hand carry address for certain patent related correspondence. For further information refer to the Updated Notice of Centralized Delivery and Facsimile Transmission Policy for Patent Related Correspondence, and Exceptions Thereto, 1292 Off. Gaz. Pat. Office 186 (March 29, 2005).

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through

Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Respectfully,

/Jeffrey S. Parkin/
Jeffrey S. Parkin, Ph.D.
Primary Examiner
Art Unit 1648

08 December, 2008

Notice of References Cited	Application/Control No. 11/491,330	Applicant(s)/Patent Under Reexamination OLSON ET AL.	
	Examiner Jeffrey S. Parkin	Art Unit 1648	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	A	US-			
	B	US-			
	C	US-			
	D	US-			
	E	US-			
	F	US-			
	G	US-			
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	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	Trkola, A., et al., 2001, Potent, broad-spectrum inhibition of human immunodeficiency virus type 1 by the CCR5 monoclonal antibody PRO 140, J. Virol. 75(2):579-588.
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

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11/491,330	07/21/2006	William C. Olson	74841-A/JPW/AG	4658

23432 7590 12/12/2008
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EXAMINER	
PARKIN, JEFFREY S	
ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.